

## A SCALE TO MEASURE THE ATTITUDE OF THE FARMERS TOWARDS FARMER FIELD SCHOOL

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### ABSTRACT

*Agricultural extension has always been regarded as a key element in improving agricultural development. Present aim for improving the extension and transfer of technology is to lay emphasis on technology assessment, refinement and transfer by improving linkage with farmers. Farmer Field School is regarded as “bottom-up” approach to extension with a focus on participatory, experiential and reflective learning to improve the problem-solving capacity of farmers. Hence to understand the feelings of farmers towards Farmer Field School, a scale was developed to measure the attitude of farmer towards Farmer Field School. Appropriate statistical method, ‘scale product method’ which combines Thurston and Likert technique was used. Twenty four (24) statements were selected for judgement; a panel of 50 judges was requested to assign the score for each statement in five continuums, based on the scale (median) and Q values, eleven (11) statements were finally selected to constitute scale to measure attitude towards Farmer Field School. Reliability of the scale was found to be 0.79.*

**Keywords:** attitude, farmer field school, scale development, scale product method

### INTRODUCTION

A school is an institution that provides learning spaces and learning environment for student’s education under the direction of teachers. Similarly, Farmer Field School is a school without wall that teaches basic agro-ecology and management skills to the farmer. The term ‘Farmer Field School’ represent an Indonesian expression *Sekolah Lapangan* meaning just field school. It is a community based practically oriented field programme, which provide opportunity to the farmers to learn, test and adapt practices through practical and hands-on method of discovery learning. Farmer Field School emphasize on observation, discussion, analysis and collective decision making. The approach aims to build self-confidence, participation and interaction of member farmer. In this approach, an extension worker is regarded as facilitator. Thus, Farmer Field School is regarded as ‘School without walls’.

In many developing countries including India, agricultural extension programme is transforming and looking forward for a participatory approach that act in response to the multifarious and site-specific needs of the

farmer. In this regard, Farmer Field School is considered as the most effective approach. Nowadays, Farmer Field Schools are promoted as an effective participatory extension methodology, through which the competencies of farmers to try and introduce complex technologies get enhanced. The approach is centrally sponsored under “Support for State Extension Programs for Extension Reforms”. Agricultural Technology Management Agency (ATMA) is the key institution responsible for implementing and coordinating the scheme at district level. Thus, Farmer Field School serves as practical tool that plays a key role in building proficiency of farmers. The direct aim of Farmer Field School approach is to change the attitude of farmers in desired manner. It is therefore, highly important to find out the present status of farmers’ attitude and factors responsible for forming the attitude towards Farmer Field School. An attempt was carried out construct a scale to measure the attitude of the farmers towards Farmer Field School.

### OBJECTIVE

To develop the scale to measure the attitude of the farmers towards farmer field school

**METHODOLOGY**

Attitude refers to the “degree of positive or negative affect associated with some psychological object” (Thurstone, 1946). In the present study attitude is conceptualized as positive or negative reaction of farmers towards Farmer Field School. Among the techniques available, researcher has used ‘Scale product method’ which combines the Thurstone’s technique of equal appearing interval scale (1929) for selection of items and Likert’s technique of summated rating (1932) for ascertaining the response on the scale.

**Item collection**

The items making up an attitude scale are known as statements. A statement may be defined as anything that is said about a psychological object. As a first step in developing the scale, 65 statements were collected from the relevant literature, and consulting experts and extension personnel of Anand Agricultural University. The statements, thus selected were edited on the basis of the criteria suggested by Edward (1957), and finally, 24 statements were selected as they were found to be non-ambiguous.

**Judge’s rating of attitude statements**

Fifty slips of the statements were sent to 50 experts working in Extension Education Institute (EEI), KVK’s, ATMA, Training Centers, ATIC, Sardar Smruthi Kendra (SSK), Department of Extension Education and Directorate of Extension Education of agricultural universities of Gujarat state and also to several other State Agricultural Universities (SAU’s) across India through direct contact/e-mail, in order to judge the degree of unfavourableness to favourableness of each statement for its inclusion in the final scale on the five points equal appearing interval continuum. All the 50 experts returned the statements after duly recording their judgments and were considered for the analysis.

**Determination of scale and quartile values**

The inter-quartile range ( $Q = Q3 - Q1$ ) for each statement was also worked out. Only those statements were selected whose median values were greater than  $Q$  value. When a few statements had the same scale values, the statements having lowest  $Q$  Values were selected. Thurstone and Chave (1946) described another criterion in addition to  $Q$  as a basis for rejecting statement in scales constructed by the

method of the equal appearing interval. Accordingly when a few items had the same scale values, the item having lowest  $Q$  Values were selected. With this same manner, a scale to measure the attitude of the farmers towards farmer field school (ffs) was developed.

**RESULT**

Based on the scale and  $Q$  values out of 24 statements 11 statements were finally selected to constitute a scale to measure the attitude of the farmers towards farmer field school (ffs).

**Table 1: Final Selected statements to measure the attitude of farmers towards Farmer Field School (FFS)**

Sr. No.	Statements	Scale value	Quartile value
1	FFS is learner-centered approach. (+)	1.60	1.12
2	FFS creates conflict among participants. (-)	3.50	1.97
3	FFS is an ideal approach of practical/experiential learning. (+)	1.76	1.03
4	Participating in FFS is a time consuming process. (-)	2.00	0.84
5	FFS provides a platform for sharing knowledge among the farmers. (+)	1.50	1.04
6	Learning in real farmer’s field is more effective than classroom learning. (+)	1.39	1.14
7	FFS helps improving self- confidence among farmers. (+)	1.90	0.86
8	FFS neglects participation of resource poor farmers. (-)	3.97	2.18
9	FFS is useful tool for sustainable group formation. (+)	1.71	0.98
10	FFS is an impractical way of developing farmers. (-)	3.70	2.13
11	FFS helps to promote sustainable agriculture. (+)	2.06	0.97

**Reliability of the scale**

A scale is reliable if it consistently produces the same results when applied to the same sample. In the present study, split-half method of testing reliability was used. The 11 statements were divided into two halves with 5 odd

numbered in one half and 6 even-numbered statements in the other. These were administered to 20 farmers. Each of the two sets of statements was treated as a separate scale and then these two sub-scales were correlated. The co-efficient of reliability was calculated by the Rulon's formula (Guilford, 1954), which came to be 0.79. Thus, the scale developed was found highly reliable.

#### **Content validity of scale**

The validity of the scale was examined for content validity by determining how well the content of the scale is representative of the domain subject matter under study (Thorat *et al.*, 2015 and Vinaya *et al.*, 2017). Since as many items covering the subject matter under study as possible were selected by discussion with the experts, reviewing the literature and strict adherence to the judges' ratings, it was assumed that the scale has satisfactory content validity.

#### **Scoring technique**

Against each of 11 statements there were five columns, representing a five point continuum of agreement or disagreement to the statements as followed by Likert (1932). The points on continuum were strongly agreed, agree and disagree with weight of 5, 4, 3, 2 and 1, respectively for positive statements and reverse scoring for negative statement

to know level of the farmers towards farmer field school (ffs). Score of each statement will be summed up.

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